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EXAMINER				
LE, TUNG X				
ART UNIT		PAPER NUMBER		
2821				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/573,126

**Applicant(s)**

BASTIANS, DAVID

**Examiner**

TUNG X. LE

**Art Unit**

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 8-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date 3/23/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the Applicant's communication filed on November 17, 2006 and preliminary amendment concurrently filed therewith. In virtue of this preliminary amendment:

- Claim 16 is cancelled; and
- Thus, claims 1-15 are currently presented in the instant application.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 07/18/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Drawings***

3. The drawings submitted on March 23, 2006 are accepted.

#### ***Claim Objections***

4. Claims 1 and 4 are objected to because of the following informalities:  
Claim 1, line 5, insert --power-- before "supply" (first occurrence).  
Claim 1, line 5, change "an" to --the--.  
Claim 4, line 2, change "the" (first occurrence) to --a--.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishizuka (U.S. Patent No. 6,163,115).

With respect to claim 1, Ishizuka discloses in figures 1 and 5b an arc lamp power supply including a first part (having a first part including elements [3, 4, 10]) including a converter [Tr, T, T2] a low voltage power supply (a power of the battery [2]) to provide an arc running power supply (having a DC output voltage supply of the converter) suitable for running an arc lamp [7] after an arc (an arc of the lamp) has been struck (after the igniting/starting state/mode of the lamp); a second part [6] adapted to receive an output (a DC output of the converter) of the arc running power supply and to apply the power supply to the arc lamp, including means to effect a high voltage power supply (column 7, lines 3-5) suitable for starting an arc (the starting arc of the arc lamp) in the arc lamp; and a flexible electric cable (figure 5b shows a cable connected from the lamp socket [38] and the apparatus [16] or figure 1 shows a cable included two wires [a high and a low potential wires] connected between the output terminal of the converter and the high voltage generation circuit) adapted to connect the first part to the second part, carrying the arc running power supply voltage (lamp power).

With respect to claim 2, Ishizuka discloses in figure 1 that the converter is a DC-DC converter (the converter [3] is a flyback DC-DC converter).

With respect to claim 3, Ishizuka discloses in figure 1 that the converter is a boost converter (the converter [3] including a step-up transformer [T], a diode [T2], and a transistor [Tr] in order to boost up the power supply to the lamp).

With respect to claim 4, Ishizuka discloses in figure 1 that the converter is a DC-DC flyback converter (column 6, lines 61-63) including a ballast [T] and a switch [Tr], a duty cycle (having a duty cycle of the signal [d] to control the switching element [Tr]) of the switch being controlled by an oscillator [8-9, 11-12, and 14] (column 7, lines 51-56).

With respect to claim 5, Ishizuka discloses in figure 1 that the duty cycle of the switch is controlled by an electronic controller [10].

With respect to claim 7, Ishizuka discloses that the first part is housed in a housing [16, 21] adapted to be mounted on the frame of a motor vehicle (figure 5a-5b).

With respect to claim 15, Ishizuka discloses in figure 1 that the voltage power supply is a battery [2].

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka (U.S. Patent No. 6,163,115).

With respect to claim 6, Ishizuka discloses all of the claimed subject matter, as expressly recited in claim 1, except for specifying that the first part is housed in a housing adapted to be mounted on a belt or harness to be worn by a user. However, such a difference is not of patentable merits since the light apparatus can be disposed in any different location that is based on a particular application or environment of use and thus the purpose of using the first part housed and mounted on a belt or harness of the user would have been deemed obvious to a person skilled in the art.

9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka (U.S. Patent No. 6,163,115) in view of Yamashita et al. (U.S. Publication No. 2004/0095069 A1).

With respect to claim 13, Ishizuka discloses all of claimed limitations, as expressly recited in claim 1, except that the cable has a rated breakdown voltage of 500V or less.

Yamashita discloses in figure 2 a cable (having a cable connected from lamp terminals [15-16] to a lighting apparatus) has a rated breakdown voltage of 500V or less (see paragraph [0009]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cable of Ishizuka by additionally arranging an insulation breakdown by the coating of insulated cable to improve reliability of a high voltage cable since Yamashita teaches that such a configuration of an insulation breakdown of a rated voltage would prevent noise and a dangerous phenomenon and thus provide a safety for a high power supply device.

With respect to claim 14, Ishizuka discloses all of claimed limitations, as expressly recited in claim 1, except that the cable has a rated breakdown voltage of 500V or less.

Yamashita discloses in figure 2 a cable (having a cable connected from lamp terminals [15-16] to a lighting apparatus) has a rated breakdown voltage of 300V or less (see paragraph [0009]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cable of Ishizuka by additionally arranging an insulation breakdown by the coating of insulated cable to improve reliability of a high voltage cable since Yamashita teaches that such a configuration of an insulation breakdown of a rated voltage would prevent noise and a dangerous phenomenon and thus provide a safety for a high power supply device.

***Allowable Subject Matter***

10. Claims 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

Prior art of record fails to disclose or fairly suggest:

- The arc lamp power supply comprising wherein the means to effect a high voltage power supply includes a means to accumulate a voltage from the arc running power supply, a coil and means to apply this accumulated voltage in a

pulse to the coil, in combination with the remaining claimed limitations as claimed in dependent claim 8 (claims 9-11 are objected since they are dependent on claim 8).

- The arc lamp power supply comprising wherein the second part includes a capacitor, a gas discharge tube and a centre tapped transformer, wherein in use, the capacitor is charged by the arc running power supply until the breakdown voltage of the gas discharge tube is reached, whereupon the tube conducts, applying a voltage pulse to the centre tap on the transformer, thereby applying an arc striking voltage to an connected arc lamp as claimed in dependent claim 12.

***Citation of Relevant Prior Art***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Ozasa et al. (U.S. Publication No. 2004/0000880 A1) discloses a lighting method and apparatus for lighting high pressure discharge lamp and high pressure discharge lamp apparatus with reduced load on lighting apparatus.

Prior art Toyama (U.S. Publication No. 2003/0057870 A1) discloses a discharge lamp driver circuit designed to minimize radiation of noise.

Prior art Toyama (U.S. Publication No. 2003/0034744 A1) discloses a discharge lamp ballast circuit.

***Inquiry***



13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUNG X. LE whose telephone number is (571)272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Douglas W Owens/  
Supervisory Patent Examiner, Art Unit 2821  
March 29, 2008